

IN THE CLAIMS

This listing of the claims replaces all prior versions of the claims in the application.

Listing of the Claims

1. (Currently amended.) An isolated antibody which specifically binds to a polypeptide selected from the group consisting of:
 - a) a polypeptide comprising the amino acid sequence of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7, and~~
 - b) ~~a polypeptide comprising a naturally-occurring amino acid sequence at least 90% identical to the full length of the sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7, wherein said naturally-occurring amino acid sequence supports NADH dehydrogenase activity, and~~
 - c) an immunogenic fragment of a polypeptide consisting of at least 10 contiguous amino acid residues of ~~an the~~ amino acid sequence ~~selected from the group consisting of~~ ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7.~~
2. (Previously presented.) A composition comprising the antibody of claim 1 in conjunction with a suitable pharmaceutical carrier.
3. (Currently amended.) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 1 comprising:
 - a) immunizing an animal with the polypeptide of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7, or an antigenically-effective fragment thereof under conditions to elicit an antibody response; and~~
 - b) screening for antibodies with the polypeptide thereby identifying a polyclonal antibody which binds specifically to the polypeptide of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7.~~
4. (Original.) An antibody produced by a method of claim 3.

5. (Previously presented.) A composition comprising the antibody of claim 4 in conjunction with a suitable pharmaceutical carrier.

6. (Currently amended.) A method of making a monoclonal antibody with the specificity of the antibody of claim 1 comprising:

- a) using the polypeptide of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7~~, or an antigenically-effective fragment thereof, to make antibody-producing hybridoma cells; and
- b) screening for antibodies with the polypeptide, thereby identifying a monoclonal antibody which binds specifically to the polypeptide of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7~~.

7. (Original.) A monoclonal antibody produced by a method of claim 6.

8. (Previously presented.) A composition comprising the antibody of claim 7 in conjunction with a suitable pharmaceutical carrier.

9. (Original.) The antibody of claim 1, wherein the antibody is:

- (a) a chimeric antibody;
- (b) a single chain antibody;
- (c) a Fab fragment; or
- (d) a F(ab')₂ fragment.

10. (Original.) The antibody of claim 1, wherein the antibody is produced by screening a Fab expression library.

11. (Original.) The antibody of claim 1, wherein the antibody is produced by screening a recombinant immunoglobulin library.

12. (Withdrawn--Currently amended.) A method for detecting polypeptide of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7~~ in a sample comprising the steps of:

- a) combining the antibody of claim 1 with a sample under conditions to allow specific binding; and
- b) detecting specific binding, wherein specific binding indicates the presence of polypeptide of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7~~ in the sample.

13. (Withdrawn--Currently amended.) A method of using an antibody to purify polypeptide of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7~~ from a sample, the method comprising:

- a) combining the antibody of claim 1 with a sample under conditions to allow specific binding; and
- b) separating the antibody from the protein, thereby obtaining purified polypeptide of ~~SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, or SEQ ID NO:7~~.

14. (Canceled.)